



IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

JUN 19 2002

Technology Center 2600

APPLICANT(S): Andrew L. Norrell, et al.
SERIAL NO.: 10/072,091
FILED: February 6, 2002
TITLE: Loop Extender with Communications, Control, and Diagnostics
EXAMINER: Unknown
GROUP ART UNIT: 2631
ATTY.DKT.NO.: PA1598US

COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

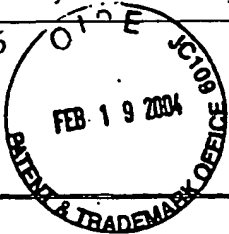
**List of Co-Pending Patent Applications That May Be Directed
Towards Similar Subject Matter**

Examiner's Initials	Serial Number	First-Named Inventor	Title	Filing Date
JAT	09/569,470	Brian L. Hinman	DSL Repeater	05/12/2000
JAT	09/610,788	Brian L. Hinman	DSP-Based Repeater for DSL Signals	07/06/2000
JAT	09/670,475	Brian L. Hinman	Load Coil and DSL Repeater Including Same	09/26/2000
JAT	10/071,980	Andrew L. Norrell	Loop Extender with Selectable Line Termination and Equalization	02/06/2002
JAT	10/071,980	Andrew L. Norrell	Line Powered Loop Extender with Communications, Control, and Diagnostics	02/06/2002
Examiner's Signature:				Date 6/2/2005

10/072 833

?

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 6491.P038	Application Number: 10/072,091
Page 3 of 6		First Named Inventor: Andrew L. Norrell	RECEIVED FEB 23 2004 Technology Center 2600
		Filing Date: 2/6/2002	



U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
JAT		6,226,322	B1	Mukherjee	5/1/2001	
JAT		6,345,072	B1	Liu et al.	2/5/2002	
JAT		6,507,606	B2	Shenoi et al.	1/14/2003	
JAT		6,188,669	B1	Bellenger	2/13/2001	
JAT		6,345,071	B1	Hamdi	2/5/2002	
JAT		5,909,445		Schneider	6/1/1999	
JAT		6,236,714	B1	Zheng et al.	5/22/2001	
JAT		6,546,100	B1	Drew	4/8/2003	
JAT		6,262,972	B1	McGinn et al.	7/17/2001	
JAT		6,236,664	B1	Erreyg�rs	5/22/2001	
JAT		5,724,344		Beck	3/3/1998	
JAT		6,091,713		Lechleider et al.	7/18/2000	
JAT		3,578,914		Simonelli	5/18/1971	

FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³ Code ⁵	Number ⁴	Kind (If known)				

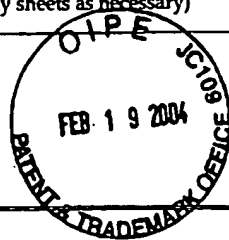
Examiner Signature		Date Considered	6/2/2005
--------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 6491.P038	Application Number: 10/072,091
Page 4 of 6		First Named Inventor: Andrew L. Norrell	RECEIVED FEB 23 2004 Technology Center 2600
		Filing Date: 2/6/2002	



U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
JAT		5,790,174		Richard, III et al.	8/4/1998	
JAT		5,455,538		Kobayashi et al.	10/3/1995	
JAT		5,526,343		Aizawa et al.	6/11/1996	
JAT		5,726,980		Rickard	3/10/1998	
JAT		5,822,325		Segaram et al.	10/13/1998	
JAT		5,974,137		Sheets et al.	10/26/1999	
JAT		5,095,528		Leslie et al.	3/10/1992	
JAT		6,029,048		Treatch	2/22/2000	
JAT		3,180,938		Glomb	4/27/1965	
JAT		3,548,120		Tarassoff	12/15/1970	
JAT		3,873,936		Cho	3/25/1975	
JAT		3,944,723		Fong	3/16/1976	
JAT		3,962,549		Zuk	6/8/1976	

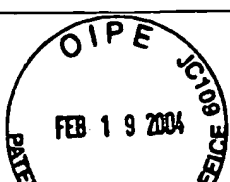
FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³ Code ⁵	Number ⁴	Kind (If known)				

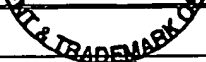
Examiner Signature		Date Considered	6/2/2005
--------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 6491.P038	Application Number: 10/072,091
Page 5 of 6		First Named Inventor: Andrew L. Norrell	RECEIVED FEB 23 2004 Technology Center 2600
		Filing Date: 2/6/2002	



U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
JAT		4,131,859		Valle	12/26/1978	
JAT		4,242,542		Kimbrough	12/30/1980	
JAT		4,392,225		Wortman	7/5/1983	
JAT		4,462,105		Wagner et al.	7/24/1984	
JAT		4,656,628		Tan	4/7/1987	
JAT		4,667,319		Chum	5/19/1987	
JAT		4,766,606		Bardutz et al.	8/23/1988	
JAT		5,181,198		Lechleider	1/19/1993	
JAT		5,394,401		Patrick et al.	2/28/1995	
JAT		4,025,737		Brewer	5/24/1977	
JAT		4,583,220		Blackburn et al.	4/15/1986	
JAT		4,633,459		Blackburn	12/30/1986	

FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³ Code ⁵	Number ⁴	Kind (If known)				

Examiner Signature		Date Considered	6/2/2005
--------------------	---	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

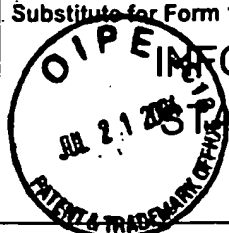
Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 6491.P038	Application Number: 10/072,091
Page 6 of 6		First Named Inventor: Andrew L. Norrell	RECEIVED FEB 23 2004
		Filing Date: 2/6/2002	
OTHER ART - NO PATENT LITERATURE DOCUMENTS Technology Center 2600			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Translation ²
JAT		"Reference Data for Radio Engineers", Published by the Federal Telephone and Radio Corporation as associate of International Telephone and Telegraph Corporation, Copyright 1943, pp. 3.	
JAT		TODD BAKER, "The Challenges of Implementing", Tektronix, October 1998 CTE Report, http://www.tektronix.org/Measurement/commtest/cte_reports/27/xdsl.html?view=print&page=http://ww , pp. 5.	
JAT		VINCE VITTORE, "TELEPHONY Making DSL go for the long run", http://industryclick.com/magazinearticle.asp?magazinearticleid=7521&magazineid=7&mode=print , December 11, 2000, pp. 2.	

Examiner Signature		Date Considered	6/2/2005
--------------------	---	-----------------	----------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Substitute for Form 1449/PTO				Complete if Known		
				Application Number	10/072,091	
				Filing Date	February 6, 2002	
				First Named Inventor:	Andrew L. Norrell	
				Art Unit	2631	
				Examiner Name	Not Yet Assigned	
Sheet	1	of	1	Attorney Docket Number	006491.P038	
U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-	Number-Kind Code ² (if known)			
JAT		US-	2002/0105964	08-08-2002	Sommer, et al.	
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

RECEIVED

JUL 27 2004

Technology Center 2600

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	6/2/2005
--------------------	---	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number 10/072,091
Filing Date February 6, 2002
First Named Inventor Andrew L. Norrell
Group Art Unit 2631
Examiner Name Unknown
Attorney Docket Number PA1598US

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
JAT		4,768,188		Barnhart, et al.	08-30-1988	RECEIVED JUN 19 2002 Technology Center 2600
JAT		4,788,657		Douglas, et al.	11-29-1988	
JAT		5,049,832		Cavers	09-17-1991	
JAT		5,736,949		Onq, et al.	04-07-1998	
JAT		5,859,895		Pomp, et al.	01-12-1999	
JAT		5,991,311		Long, et al.	11-23-1999	
JAT		6,047,222		Burns, et al.	04-04-2000	
JAT		6,128,300		Horton	10-03-2000	
JAT		6,195,414		Simmons, et al.	02-27-2001	
JAT		6,246,695		Seazholtz et al.	06-12-2001	
JAT		6,263,047		Randle, et al.	07-17-2001	
JAT		6,266,348		Gross, et al.	07-24-2001	
JAT		6,266,395		Liu, et al.	07-24-2001	
JAT		6,370,188		Wu, et al.	04-09-2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature

Date Considered

6/2/2005

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.